

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/575,905  
Source: IFWP  
Date Processed by STIC: 04/27/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 04/27/2006

PATENT APPLICATION: US/10/575,905

TIME: 07:18:27

Input Set : A:\14875-161US1sq.txt

Output Set: N:\CRF4\04272006\J575905.raw

```

3 <110> APPLICANT: Hattori, Kunihiro
4     Kojima, Tetsuo
5     Miyazaki, Taro
6     Soeda, Tetsuhiro
7     Senoo, Chiaki
8     Natori, Osamu
9     Kasutani, Keiko
10    Ishii, Shinya
12 <120> TITLE OF INVENTION: BISPECIFIC ANTIBODY SUBSTITUTING FOR FUNCTIONAL PROTEINS
14 <130> FILE REFERENCE: 14875-161US1
C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/575,905
C--> 16 <141> CURRENT FILING DATE: 2006-04-14
16 <150> PRIOR APPLICATION NUMBER: PCT/JP2003/013123
17 <151> PRIOR FILING DATE: 2003-10-14
19 <160> NUMBER OF SEQ ID NOS: 82
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 120
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
29 Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
30 1          5          10          15
32 Ser Val Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Phe Tyr
33          20          25          30
35 Trp Ile Asn Trp Ile Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
36          35          40          45
38 Gly Arg Ile Asp Pro Tyr Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe
39          50          55          60
41 Lys Asp Lys Ala Ile Leu Thr Val Asp Lys Tyr Ser Ser Thr Ala Tyr
42 65          70          75          80
44 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
45          85          90          95
47 Ala Lys Gly Val Tyr Asp Gly His Trp Phe Phe Asp Val Trp Gly Ala
48          100         105         110
50 Gly Thr Ser Val Thr Val Ser Ser
51          115         120
53 <210> SEQ ID NO: 2
54 <211> LENGTH: 108
55 <212> TYPE: PRT
56 <213> ORGANISM: Homo sapiens
58 <400> SEQUENCE: 2
59 Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly

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60 1          5          10          15
62 Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Ala
63          20          25          30
65 Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
66          35          40          45
68 Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ala Arg Phe Ser Gly
69          50          55          60
71 Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Thr
72 65          70          75          80
74 Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Arg Thr Pro Pro
75          85          90          95
77 Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys Arg
78          100          105
80 <210> SEQ ID NO: 3
81 <211> LENGTH: 119
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapiens
85 <400> SEQUENCE: 3
86 Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Glu Lys Pro Gly Ala
87 1          5          10          15
89 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Ser Asp Tyr
90          20          25          30
92 Asn Met Asn Trp Val Lys Gln Ser Asn Gly Lys Ser Leu Glu Trp Ile
93          35          40          45
95 Gly Asn Ile Asp Pro Tyr Asn Gly Asp Thr Asn Tyr Asn Gln Lys Phe
96          50          55          60
98 Lys Gly Lys Ala Thr Leu Thr Leu Asp Lys Ser Ser Ser Thr Ala Tyr
99 65          70          75          80
101 Met Gln Leu Lys Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
102          85          90          95
104 Ala Arg Ser Arg Gly Trp Leu Leu Pro Phe Ala Tyr Trp Gly Gln Gly
105          100          105          110
107 Thr Leu Val Thr Val Ser Ala
108          115
110 <210> SEQ ID NO: 4
111 <211> LENGTH: 108
112 <212> TYPE: PRT
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 4
116 Asp Ile Leu Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
117 1          5          10          15
119 Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Gly Ile Asn
120          20          25          30
122 Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
123          35          40          45
125 Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
126          50          55          60
128 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
129 65          70          75          80

```

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131 Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
132      85                      90                      95
134 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
135      100                      105
137 <210> SEQ ID NO: 5
138 <211> LENGTH: 117
139 <212> TYPE: PRT
140 <213> ORGANISM: Homo sapiens
142 <400> SEQUENCE: 5
143 Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Arg Pro Gly Val
144 1      5                      10                      15
146 Ser Val Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asp Tyr
147      20                      25                      30
149 Ala Ile His Trp Val Arg Gln Ser His Ala Gln Ser Leu Glu Trp Ile
150      35                      40                      45
152 Gly Val Ile Gly Thr Tyr Ser Gly Asn Arg Asn Tyr Asn Gln Lys Phe
153      50                      55                      60
155 Lys Gly Lys Lys Ala Thr Met Thr Val Asp Lys Ser Ser Thr Ala Tyr
156 65      70                      75                      80
158 Met Glu Leu Ala Arg Leu Thr Ser Glu Asp Ser Ala Ile Tyr Tyr Cys
159      85                      90                      95
161 Ala Arg Ser Ala Gly Tyr Ser Leu Asp Phe Trp Gly Gln Gly Thr Ser
162      100                      105                      110
164 Val Thr Val Ser Ser
165      115
167 <210> SEQ ID NO: 6
168 <211> LENGTH: 112
169 <212> TYPE: PRT
170 <213> ORGANISM: Homo sapiens
172 <400> SEQUENCE: 6
173 Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
174 1      5                      10                      15
176 Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
177      20                      25                      30
179 Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser
180      35                      40                      45
182 Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
183      50                      55                      60
185 Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
186 65      70                      75                      80
188 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly
189      85                      90                      95
191 Lys His Phe Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
192      100                      105                      110
194 <210> SEQ ID NO: 7
195 <211> LENGTH: 119
196 <212> TYPE: PRT
197 <213> ORGANISM: Homo sapiens
199 <400> SEQUENCE: 7

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Input Set : A:\14875-161US1sq.txt

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200 Gln Val Gln Leu Gln Gln Ser Gly Gly Glu Leu Val Arg Pro Gly Thr
201 1 5 10 15
203 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Tyr
204 20 25 30
206 Leu Ile Glu Trp Ile Arg Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
207 35 40 45
209 Gly Val Ile Asn Pro Gly Ser Gly Asn Ser Lys Ser Ser Lys Asn Leu
210 50 55 60
212 Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Asn Thr Ala Tyr
213 65 70 75 80
215 Met Gln Leu Ser Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Phe Cys
216 85 90 95
218 Ala Arg Ser Gly Val Tyr Gly Ser Ser Pro Asp Tyr Trp Gly Gln Gly
219 100 105 110
221 Thr Thr Leu Thr Val Ser Ser
222 115
224 <210> SEQ ID NO: 8
225 <211> LENGTH: 113
226 <212> TYPE: PRT
227 <213> ORGANISM: Homo sapiens
229 <400> SEQUENCE: 8
230 Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
231 1 5 10 15
233 Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
234 20 25 30
236 Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser
237 35 40 45
239 Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
240 50 55 60
242 Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
243 65 70 75 80
245 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly
246 85 90 95
248 Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
249 100 105 110
251 Arg
254 <210> SEQ ID NO: 9
255 <211> LENGTH: 118
256 <212> TYPE: PRT
257 <213> ORGANISM: Homo sapiens
259 <400> SEQUENCE: 9
260 Gln Val Gln Leu Gln Gln Ser Gly Gly Glu Leu Val Arg Pro Gly Thr
261 1 5 10 15
263 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Tyr
264 20 25 30
266 Leu Ile Glu Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Asp Trp Ile
267 35 40 45
269 Gly Met Ile Asn Pro Gly Ser Gly Gly Thr Lys Cys Asn Lys Lys Phe
270 50 55 60

```

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Input Set : A:\14875-161US1sq.txt

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```

272 Lys Gly Lys Val Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
273 65              70              75              80
275 Met His Leu Ser Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Phe Cys
276              85              90              95
278 Ala Arg Ser Gly Trp Val Ser Ala Met Asp Tyr Trp Gly Gln Gly Thr
279              100              105              110
281 Ser Val Thr Val Ser Ser
282              115
284 <210> SEQ ID NO: 10
285 <211> LENGTH: 113
286 <212> TYPE: PRT
287 <213> ORGANISM: Homo sapiens
289 <400> SEQUENCE: 10
290 Asp Ile Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
291 1              5              10              15
293 Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
294              20              25              30
296 Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser
297              35              40              45
299 Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
300              50              55              60
302 Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
303 65              70              75              80
305 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly
306              85              90              95
308 Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
309              100              105              110
311 Arg
314 <210> SEQ ID NO: 11
315 <211> LENGTH: 118
316 <212> TYPE: PRT
317 <213> ORGANISM: Homo sapiens
319 <400> SEQUENCE: 11
320 Gln Val Gln Leu Gln Gln Ser Gly Val Glu Leu Val Arg Pro Gly Thr
321 1              5              10              15
323 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Tyr
324              20              25              30
326 Leu Ile Glu Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Asp Trp Ile
327              35              40              45
329 Gly Met Ile Asn Pro Gly Ser Gly Gly Thr Lys Cys Asn Lys Lys Phe
330              50              55              60
332 Lys Gly Lys Val Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
333 65              70              75              80
335 Met His Leu Ser Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Phe Cys
336              85              90              95
338 Ala Arg Ser Gly Trp Val Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
339              100              105              110
341 Ser Val Thr Val Ser Ser
342              115

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/575,905

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Input Set : A:\14875-161US1sq.txt  
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:27,28,29,30,31,32,36,37,38

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/575,905

DATE: 04/27/2006

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Input Set : A:\14875-161US1sq.txt

Output Set: N:\CRF4\04272006\J575905.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application No

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date